

Claims

1. A method for controlling supply of fuel to a combustion engine (1), e.g. a self-igniting internal combustion engine in a vehicle, having a first group of cylinders (4a) and a second group of cylinders (4b), comprising the steps of:
 - 5 determining if a demanded total fuel quantity to the combustion engine (1) is below a first predetermined total fuel quantity;
 - and, if the demanded total fuel quantity to the combustion engine (1) is below the first predetermined total fuel quantity, increasing the fuel supply to the first group of cylinders (4a) with a value determined by the demanded total fuel quantity and decreasing the fuel supply to the second group of cylinders (4b) with substantially the same value.
- 10 2. A method according to claim 1, wherein the value is reciprocally proportional to the demanded total fuel quantity on at least a part of a demanded total fuel quantity range between zero demanded total fuel quantity and the first predetermined total fuel quantity.
- 15 3. A method according to claim 2, wherein the value is reciprocally proportional to the demanded total fuel quantity in the whole demanded total fuel quantity range between a second predetermined total fuel quantity and the first predetermined total fuel quantity, the second predetermined total fuel quantity being smaller than the first predetermined total fuel quantity.
- 20 4. A method according to claim 2, wherein the value is highest and constant in a demanded total fuel quantity range between a second predetermined total fuel quantity and a third predetermined total fuel quantity, which is larger than the second predetermined total fuel quantity, but lower than the first predetermined total fuel quantity.
- 25 5. A method for controlling supply of fuel to a combustion engine (1), e.g. a self-igniting internal combustion engine in a vehicle (2), having a first group of cylinders (4a) and a second group of cylinders (4b), comprising the steps of:
 - determining if a demanded fuel quantity to one of the cylinders (4a or 4b) is below a first predetermined fuel quantity (P);
 - 30 and, if the demanded fuel quantity to the cylinder is below the first predetermined fuel quantity (P), increasing the fuel supply to the first group of cylinders (4a) with a value

determined by the demanded fuel quantity and decreasing the fuel supply to the second group of cylinders (4b) with substantially the same value.

6. A method according to claim 5, wherein the value is reciprocally proportional to the demanded fuel quantity on at least a part of a demanded fuel quantity range between zero demanded fuel quantity and the first predetermined fuel quantity (P).
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7. A method according to claim 6, wherein the value is reciprocally proportional to the demanded fuel quantity in the whole demanded fuel quantity range between a second predetermined fuel quantity (Z) and the first predetermined fuel quantity (P), the second predetermined fuel quantity (Z) being smaller than the first predetermined fuel quantity (P).
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8. A method according to claim 6, wherein the value is highest and constant in a demanded fuel quantity range between a second predetermined fuel quantity (Z) and a third predetermined fuel quantity (Q), which is larger than the second predetermined fuel quantity (Z), but lower than the first predetermined fuel quantity (P).
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9. A method according to any one of the preceding claims, wherein the value is always less than 100%.
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10. A method according to any one of the preceding claims, wherein the steps are performed during at least a part of a gear shifting procedure controlled by an electronic control unit (19) for semi-automatic or automatic gear shifting.
11. A method according to any one of the preceding claims, wherein the steps are performed when an automatic cruise control system for a vehicle controls the combustion engine (1).
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12. A method according to any one of the preceding claims, wherein the fuel supply is increased to every two cylinders of all cylinders of the engine (1) and decreased to the other cylinders of the engine according to an ignition order for all the cylinders of the engine (1).
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13. A computer program (14) comprising computer readable code means, which when run on a computer for controlling fuel supply to a combustion engine (1) cause the computer to perform the steps of claim 1 or 5.

14. An electronic control unit (3) in a vehicle for controlling fuel supply to a combustion engine (1) in the vehicle, comprising a storing means (13) and a computer program (14) according to claim 13 recorded thereon.

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15. A computer program product (13), comprising a computer readable medium, which comprises a computer program (14) according to claim 13.